

**AGREEMENT RENEWAL
BETWEEN THE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)
AND THE
DEPARTMENT OF THE ARMY (DA)**

Amendment 001 to MOA-95-412

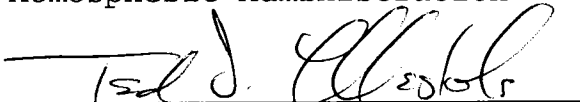
The existing umbrella Memorandum of Agreement, dated July 21, 1995, between NOAA and DA has improved interagency coordination in a number of technical areas. Both parties will continue to benefit from renewal of the Agreement and the supplemental Annexes that were developed to facilitate streamlining reimbursable work orders for goods and services between parties.

In accordance with ARTICLE XIII of the Agreement, the Executive Agents, NOAA Assistant Administrator for Ocean Services and Coastal Zone Management and DA Deputy Commander for Civil Works, mutually agree to extend the term of the Agreement and all of the Articles therein for five years unless terminated as provided in ARTICLE XII.

All other terms and conditions remain in full force and effect.

APPROVED:


U.S. Department of Commerce
National Oceanic and
Atmospheric Administration



Assistant Administrator for
Ocean Services and Coastal
Zone Management

Date: JUL 7 2000

U.S. Department of the Army



Deputy Commander for Civil
Works

Date: 20 July 2000



DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

CECW-EP-S

MEMORANDUM FOR Deputy Commander for Civil Works

SUBJECT: Agreement Renewal with the National Oceanic and Atmospheric Administration (NOAA) -- ACTION MEMORANDUM

1. PURPOSE. To sign an Agreement Renewal with NOAA for continuing a mutual framework governing the respective responsibilities of the two agencies for cooperative activities and for the provision of reimbursable technical assistance and related goods or services to each other.
2. RECOMMENDATION. That the Deputy Commander for Civil Works sign the Agreement Renewal at the Signature Tab which continues an umbrella mechanism for follow-on Annexes and Work Orders to be executed by the two agencies.

APPROVED: _____ DISAPPROVED: _____ SEE ME: _____

3. BACKGROUND AND DISCUSSION.

a. The current Memorandum of Agreement (MOA), in place since 21 July 1995, was initiated from a meeting on 1 July 1994 between Dr. Zirschky, the Acting Assistant Secretary of the Army (Civil Works) (AASA (CW)) and Dr. Stanley Wilson, the Assistant Administrator of NOAA for Ocean Services & Coastal Zone Management, see Background Tab 1. This MOA has a termination date of 5 years and will expire on 21 July 2000, unless both agencies sign the Agreement Renewal by then.

b. Under this current umbrella MOA, supplemental Annexes on engineering, design and construction management; hydrographic surveying; technology support; charting; research and development have and continue to be developed. The Annexes were structured to allow each agency to order goods or services on a reimbursable basis from the other and to allow both agencies to participate in cooperative efforts where no goods or services will be exchanged. Either party, ordering goods or services from the other, has issued Work Orders pursuant to these Annexes. A matrix showing the points of contact and signature authorities and items intended to be covered in follow-on Annexes is at Background Tab 2. This matrix will be updated once the Agreement Renewal is signed.

c. Having this umbrella MOA in place has improved interagency coordination efforts between the Corps and NOAA in a number of areas. For instance, it has streamlined the process of having NOAA perform tidal datum determinations for the Corps. Each district now only needs to issue a work order, referencing the umbrella MOA and the Annex on tidal datums instead of

CECW-EP-S

SUBJECT: Agreement Renewal with the National Oceanic and Atmospheric Administration (NOAA) -- ACTION MEMORANDUM

developing their own MOA. It has also benefited our efforts to share digital hydrographic chart data and differential Global Positioning System (DGPS) continuously operating reference station data between the two agencies. Similar benefits have also been achieved in the other topic areas, such as research and development and joint use of the Scanning Hydrographic Operational Airborne Lidar Survey (SHOALS) system, developed by the Corps with support from NOAA.

4. IMPACTS. Not signing this Agreement Renewal will have a negative impact on current and future Corps dredging projects, electronic charting coordinating, hydrographic surveying and research and development efforts. For example, each district would have to enter into a separate MOA with NOAA to perform tidal datum determinations for the Corps instead of issuing a work order, referencing the umbrella MOA and the Annex on tidal datums.

5. COORDINATION.

CECC-J	Concur/Nonconcur	<u>Joseph Beach</u> (Name)	<u>J.B.</u> (Int.)	<u>12 July 00</u> (Date)
CECW-O	Concur/Nonconcur	<u>Michael Kirby</u> (Name)	<u>MFK</u> (Int.)	<u>13 July 00</u> (Date)
CECS-I	Concur/Nonconcur	<u>DR/CISICU</u> (Name)	<u>DR</u> (Int.)	<u>14 July 00</u> (Date)
CEMP-R	Concur/Nonconcur	<u>W. Eckert</u> (Name)	<u>W</u> (Int.)	<u>14 July 00</u> (Date)
CERD-C	Concur/Nonconcur	<u>LE Funk</u> (Name)	<u>LF</u> (Int.)	<u>7/17/00</u> (Date)

Encls

Dwight A. Beranek
DWIGHT A. BERANEK, P.E.
Chief, Engineering and Construction Division
Office of Deputy Commanding General
for Civil Works

M.K. Miles, CW-EP-S/8885

MEMORANDUM OF AGREEMENT
BETWEEN
THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AND
THE DEPARTMENT OF THE ARMY

ARTICLE I - PURPOSE AND AUTHORITY

This Memorandum of Agreement (MOA) is entered into by and between the U.S. Department of the Army (DA) and the National Oceanic and Atmospheric Administration (NOAA) ("the Parties") for the purpose of establishing a mutual framework governing the respective responsibilities of the Parties for cooperative activities and for the provision of reimbursable technical assistance and related goods or services.

✓ This MOA is entered into pursuant to 15 U.S.C. 1525, the Department of Commerce's joint project authority and 10 U.S.C. 2358, the Department of Defense's authority for joint research and development projects. It has been determined that this arrangement is of mutual benefit to both Parties. Subsequent Annexes to this MOA will state the appropriate authorizing statutes, such as the Economy in Government Act, 31 U.S.C. 1535.

ARTICLE II - SCOPE

Activities which may be conducted under this MOA include engineering, design and construction management; hydrographic surveying; technology support; charting; research and development; and such related goods or services as may be agreed upon in the future. Activities may also include coordination of issues of resource management of concern to both parties including, but not limited to, policy and regulatory development and implementation potentially affecting coastal and ocean resources. The scope of this umbrella MOA extends to all activities of NOAA which are under the purview of NOAA's Under Secretary for Oceans and Atmosphere and those of the DA which are under the purview of the Assistant Secretary of the Army for Civil Works.

Nothing in this MOA shall be construed to require either Party to conduct activities or provide goods or services, except as set forth in Annexes or Work Orders (WO(s)) under this MOA. Future agreements between the Parties are expected to be developed as Annexes under this MOA. This MOA shall not affect any pre-existing or independent relationships or obligations between the NOAA and the DA. Other agencies may be parties to Annexes or WOs with the mutual agreement of all parties. The Parties agree to consult with each other if either Party conducts negotiations with third parties on subjects within the scope of this MOA which may lead to agreements or projects creating or implying obligations or commitments affecting the other Party.

ARTICLE III - PARTY REPRESENTATIVES

The Executive Agent for each Party shall serve as its central point of contact on matters relating to this MOA. The Executive Agent for the NOAA shall be the Assistant Administrator for Ocean Services and Coastal Zone Management. The Executive Agent for the DA shall be the Director for Civil Works.

The Executive Agents will:

- (1) appoint representatives to serve as points-of-contact to develop, conclude, sign, and execute Annexes under this MOA;
- (2) negotiate solutions to any disputes which may arise relative to interpretation or application of this MOA, or of any Annex or WO concluded under this MOA.
- (3) appoint an Executive Secretary for its Party who will be responsible for communications, review of Annexes and WOs, and preparation of an annual summary of the activities of this MOA.

ARTICLE IV - ANNEXES AND RELATED WORK ORDERS

Work in specific areas shall be in compliance with mutual agreements contained in written Annexes. Either Party may request development of Annexes. Specific tasks within the scope of these Annexes which require the provision of goods or services shall be executed in compliance the written WOs.

ANNEXES executed by the Parties shall contain agreements on specific joint projects or, when goods or services are to be provided, work statements and implementation and funding arrangements for specific topic areas. Annexes shall include the following:

- (1) Title
- (2) Introduction - concise description of purpose; authorities of the Parties to enter into the Annex; background; and reference to this umbrella MOA;
- (3) Work Statement or Execution Arrangement - description of joint activities; general statement of work, schedule, and deliverables (which may be in the form of an Annual Work Plan to accompany the Annex); or reference to WOs to be developed for particular tasks;
- (4) Implementation and Funding Arrangements - identification of cooperating organizations; amount and citation of funds or other resources to be transferred between Parties to accomplish work as stated above, including funding of joint activities and cooperative research and development projects; statement of date upon which cited funds expire for obligation purposes; and type of contracts to be used (if planned and known); or reference to WOs to be developed for particular tasks;

- (5) Responsibilities - identification of individual project managers and individuals authorized to sign WOs;
- (6) Amendment, Review, and Termination - procedures for amending the Annex and related WOs, if any; expected reviews; and termination date;
- (7) Reports and Publications - types and frequencies of reports; identification of rights to data, software, and intellectual property; and responsibilities for records maintenance and public announcements;
- (8) Liability - identification of liability on joint activities or cooperative research and development projects;
- (9) Other - such other particulars as are necessary to describe clearly the obligations of the Parties with respect to covered activities, and exceptions, if any, to terms of this MOA.

WORK ORDERS may be executed pursuant to Annexes and accompanying Annual Work Plans in order to carry out specific tasks which require the provision of goods or services. Both Parties shall conclude mutually agreed upon written WOs for project specific work, which shall include the following: a detailed scope of work statement; schedules; identification of the NOAA and DA points of contact for work execution; the amount of funds required and available to accomplish the scope of work as stated above; frequency of inspections if required; and such other particulars as are necessary to describe clearly the obligations of the parties with respect to the requested goods or services.

Activities shall be conducted under this MOA only after an appropriate Annex has been signed by representatives appointed by the Executive Agents to execute that Annex. Goods or services shall be provided by one Party for the other Party only after an appropriate WO is signed by authorized individuals. The Parties shall certify, prior to execution, that each WO under this MOA complies with the requirements of the Economy in Government Act. Upon signature by each Parties' representative, such WO shall constitute a valid Economy in Government Act order.

In case of conflict between this MOA and an Annex or WO, this MOA shall control unless an explicit exception is approved in writing by the Executive Agents. In case of conflict between an Annex and a WO, the Annex shall control.

ARTICLE V - RESPONSIBILITIES OF THE PARTIES

The Parties shall conduct activities and provide goods or services in accordance with the purpose, terms, and conditions of this MOA and with the specific requirements set forth in Annexes or WO.

The Parties shall use their best efforts to provide agreed-upon goods or services either by contract or by in-house effort.

The Party providing goods or services under this MOA shall inform the other Party of all contracts entered into under each WO and shall provide detailed periodic progress, financial, and other reports to the other Party as agreed to in the Annex or WO. Financial reports shall include information on all funds received, obligated, and expended, and on forecast obligations and expenditures.

The Party ordering goods or services under this MOA shall obtain all necessary real estate interests and access to all work sites and support facilities, and shall perform all coordination with, and obtain any permits from, state and local agencies, as necessary during the execution of each Annex or WO.

ARTICLE VI - FUNDING

The Party requesting goods or services pursuant to a WO authorized by this MOA shall pay all costs associated with the other Party's provision of those goods or services. For WOs for work estimated to cost more than \$250,000 total in contracts and in-house services or \$50,000 in contracts, an approved funding document shall be in place prior to initiating any work. The Party providing goods or services shall prepare a Standard Form (SF) 1080 (Voucher for Transfers between Appropriations and/or Funds) and bill the other Party in advance. For WOs for work valued at less than these amounts, the Party providing goods or services shall bill the other Party monthly for costs incurred, using SF 1080, and the other Party shall provide reimbursement within 30 days of receipt of the voucher.

If the Party providing goods or services under this MOA forecasts its actual costs under a WO to exceed the amount of funds available under that WO, it shall promptly notify the other Party of the amount of additional funds necessary to complete the work under that WO. The Party requesting the goods or services shall either provide the additional funds, or require that the scope of work be limited to that which can be paid for by the then-available funds, or direct termination of the work under that WO.

Within 90 days of completing the work under a WO, the Party providing goods or services under that WO shall conduct an accounting to determine the actual costs of the work and present it to the other Party. Within 30 days of completion of this accounting, the Party providing goods or services shall return to the other Party any funds advanced in excess of the actual costs as then known, or that Party receiving the goods or services shall provide any additional funds necessary to cover the actual costs as then known. Such an accounting shall in no way limit the duty of the requesting Party in accordance with Article X to pay for any costs, such as contract claims or other liability, which may become known after the final accounting.

✓ ARTICLE VII - APPLICABLE LAWS

This MOA and all documents and actions pursuant to it shall be governed by the applicable statutes, regulations, directives, and procedures of the United States. Unless otherwise required by law, all contract work awarded by either Party shall be governed by the policies and procedures of their respective organization.

If any provision of this MOA is determined to be invalid or unenforceable, the remaining provisions shall remain in force and unaffected to the fullest extent permitted by law and regulation.

ARTICLE VIII - CONTRACT CLAIMS AND DISPUTES

All claims and disputes by contractors arising under or relating to contracts awarded by either Party shall be resolved in accordance with Federal law and the terms of the individual contract. Each Party shall be responsible for handling litigation involving disputes and appeals arising under or related to any contract which it has awarded pursuant to this MOA, and for coordinating with the Department of Justice as appropriate. Each Party shall notify the other Party of any such litigation and afford the other Party an opportunity to review and comment on the litigation proceedings and any resulting settlement negotiations.

✓ ARTICLE IX - DISPUTE RESOLUTION

In the event of a dispute between the Parties, the NOAA and the DA shall use their best efforts to resolve that dispute in an informal fashion through consultation and communication, or other forms of non-binding alternative dispute resolution mutually acceptable to the Parties. The Parties agree that, in the event such measures fail to resolve the dispute, they shall refer it for resolution to the Office of Management and Budget.

✓ ARTICLE X - LIABILITY

If liability of any kind is imposed on the United States relating to the provision of goods or services under WOs authorized by this MOA, each Party will accept accountability for its actions, but the Party requesting goods or services under a WO shall remain responsible as the program proponent for providing such funds as are necessary to discharge the liability and all related costs.

ARTICLE XI - PUBLIC INFORMATION

Each Party is responsible for justification and explanation of its programs before Congress and other agencies, departments, and offices of the Federal Executive Branch and for public information. The other Party may provide, upon request, any assistance necessary to support the justification or explanations of programs conducted under this MOA. The other Party may also make public announcements and respond to all inquiries relating to the ordinary procurement and contract award and administration process. Each Party shall make its best efforts to give the other Party advance notice before making any public statement regarding work contemplated, undertaken, or completed pursuant to Annexes or WOs under this MOA.


ARTICLE XII - AMENDMENT AND TERMINATION

This MOA may be amended only by written, mutual agreement of the Parties. This MOA may be terminated by mutual agreement. In addition, either Party may terminate this MOA by providing written notice to the other Party. The termination shall be effective on the sixtieth calendar day following notice, unless a later date is set forth. In the event of termination, the Party requesting goods or services under a WO shall be responsible for the costs of closing out or transferring any on-going contracts. The provisions of this MOA, Annexes or WOs thereto, which require performance after the expiration or termination of this MOA shall remain in force notwithstanding the expiration or termination of this MOA.

ARTICLE XIII - EFFECTIVE DATE


This MOA shall become effective when signed by the approving official of both the NOAA and the DA and shall remain in effect for five years unless terminated as provided in Article XII. This MOA may be renewed upon the written, mutual agreement of the executive agents.

U.S. National Oceanic and Atmospheric
Administration


Deputy Under Secretary of Commerce
for Oceans and Atmosphere

Date: 7/21/95

U.S. Department of the Army


Acting Assistant Secretary of the
Army (Civil Works)

Date: 6/30/95

NOAA - DA
MEMORANDUM OF AGREEMENT
TOPICS/POC LISTING

MOA Signatories:

NOAA - Diana H. Josephson, NOAA's Deputy Under Secretary for Oceans and Atmosphere
DA - Dr. John H. Zirschky, Acting Assistant Secretary of Army (Civil Works)

MOA Executive Agents:

NOAA - Dr. W. Stanley Wilson, Assistant Administrator of NOAA for Ocean Services & Coastal Zone Management
DA - MG Hans A. Van Winkle, Deputy Commander for Civil Works, US Army Corps of Engineers

MOA Executive Secretaries:

NOAA - Donald E. Pryor, National Ocean Service
DA - M.K. Miles, US Army Corps of Engineers, Civil Works Directorate

Potential Annex	COE Contact	COE Signature	NOAA Contact	NOAA Signature
Hydrographic Surveying	M.K. Miles Engr Div, Civil Works Dir	COL. Eric R. Potts Exec Dir, Civil Works	Cmdr. Andy Armstrong NOAA/NOS Staff	Mr. Frank Maloney Ch, Nautical Charting Div
Research & Development	Dave Mathis R&D Directorate	Dr. Lewis Link Dir, R&D	Stan Alper Nautical Charting Division	Mr. Frank Maloney Ch, Nautical Charting Div
SHOALS	Jeff Lillycrop USAERDC, WES	COL. Eric R. Potts Exec Dir, Civil Works	Stan Alper Nautical Charting Division	Mr. Frank Maloney Ch, Nautical Charting Div
Water Levels	M.K. Miles Engr Div, Civil Works Dir	COL. Eric R. Potts Exec Dir, Civil Works	Jim Hubbard Ocean/Lake Levels Division	Dr. Donald C. Beaumariage Ch, Ocean/Lake Levels Div
Global Positioning System	M.K. Miles Engr Div, Civil Works Dir	COL. Eric R. Potts Exec Dir, Civil Works	Dave Zilkoski NOAA/NOS Staff	CAPT. Lewis A. Lapine Ch, National Geodetic Sur
Charting (data exchange, DX90, metrication)	M.K. Miles Engr Div, Civil Works Dir	COL. Eric R. Potts Exec Dir, Civil Works	Dave Enabnit Nautical Charting Division	Mr. Frank Maloney Ch, Nautical Charting Div
Port Planning (dredging, disposal, beneficial uses, CZMA consistency)	Barry Holliday Dredging/Navigation Br, Operations Div, Civil Works Directorate	COL. Eric R. Potts Exec Dir, Civil Works	Mr. Jim Lawless Asst Ch, Office of Ocean & Coastal Resources Mgmt	Mr. Jeff Benoit Ch, Office of Ocean & Coastal Resources Mgmt
Environmental Design & Construction Management (restoration work)	Rhea Cohen Interagency Env Asst Br, Envir Restoration Division, Mil. Programs Directorate	Mr. Pat Rivers Chief, Environmental Restoration Division, Mil. Programs Directorate	Mr. Jim Lawless Asst Ch, Office of Ocean & Coastal Resources Mgmt	Mr. Jeff Benoit Ch, Office of Ocean & Coastal Resources Mgmt

NOAA - DA
MEMORANDUM OF AGREEMENT
TOPICS/POC LISTING

MOA Signatories:

NOAA - Diana H. Josephson, NOAA's Deputy Under Secretary for Oceans and Atmosphere
DA - Dr. John H. Zirschky, Acting Assistant Secretary of Army (Civil Works)

MOA Executive Agents:

NOAA - Dr. W. Stanley Wilson, Assistant Administrator of NOAA for Ocean Services & Coastal Zone Management
DA - MG Stanley Genega, Director of Civil Works, US Army Corps of Engineers

MOA Executive Secretaries:

NOAA - Donald E. Pryor, National Ocean Service
DA - M.K. Miles, US Army Corps of Engineers, Civil Works Directorate

Potential Annex	COE Contact	COE Signature	NOAA Contact	NOAA Signature
Hydrographic Surveying	Bill Bergen Engr Div, Civil Works Dir	COL. Cary W. Wright Exec Dir, Civil Works	Cmdr. Andy Armstrong NOAA/NOS Staff	Mr. Frank Maloney Ch, Nautical Charting Div
Research & Development	Dave Mathis R&D Directorate	Dr. William E. Roper Asst Dir, R&D	Stan Alper Nautical Charting Division	Mr. Frank Maloney Ch, Nautical Charting Div
SHOALS	Jeff Lillycrop USACE Waterways Exp Sta	COL. Cary W. Wright Exec Dir, Civil Works	Stan Alper Nautical Charting Division	Mr. Frank Maloney Ch, Nautical Charting Div
Water Levels	Bill Bergen Engr Div, Civil Works Dir	COL. Cary W. Wright Exec Dir, Civil Works	Jim Hubbard Ocean/Lake Levels Division	Dr. Donald C. Beaumariage Ch, Ocean/Lake Levels Div
Global Positioning System	Bill Bergen Engr Div, Civil Works Dir	COL. Cary W. Wright Exec Dir, Civil Works	Dave Zilkoski NOAA/NOS Staff	CAPT. Lewis A. Lapine Ch, National Geodetic Sur
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Port Planning (dredging, disposal, beneficial uses, CZMA consistency)	Barry Holliday Dredging/Navigation Br, Operations Div, Civil Works Directorate	COL. Cary W. Wright Exec Dir, Civil Works	Mr. Jim Lawless Asst Ch, Office of Ocean & Coastal Resources Mgmt	Mr. Jeff Benoit Ch, Office of Ocean & Coastal Resources Mgmt
Environmental Design & Construction Management (restoration work)	Rhea Cohen Interagency Env Asst Br, Envir Restoration Division, Mil. Programs Directorate	Mr. Carey C. Jones Chief, Environmental Restoration Division, Mil. Programs Directorate	Mr. Jim Lawless Asst Ch, Office of Ocean & Coastal Resources Mgmt	Mr. Jeff Benoit Ch, Office of Ocean & Coastal Resources Mgmt

**WATER LEVELS ANNEX
TO THE
MEMORANDUM OF AGREEMENT
BETWEEN
THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AND
THE DEPARTMENT OF THE ARMY**

I. Introduction and Background

The purpose of this Annex is to facilitate beneficial cooperation in establishing tidal and water level datums between the U.S. Army Corps of Engineers (USACE) and the National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA) ("the Parties") and to establish mechanisms for implementing study projects, coordinating work, providing professional services contract support, exchanging information and expertise, and where appropriate and effective, pooling resources of the Parties.

Specifically, this Annex establishes the overall policies and relationships guiding inter-agency activities between USACE and NOAA for the funding, installation and operation of water level gauges at selected locations, collection of tide and water level data, data reduction and computation, and certification of tidal datums. This Annex is primarily intended to define NOAA activities required to support the datum determination requirements of the USACE river and harbor navigation mission.

This Annex provides for the maximum use of existing infrastructure and resources within each agency to the mutual benefit of both agencies. As a result, accurate tidal datums will be available in more locations to support various USACE water resources missions and NOAA nautical charting and tide predictions.

II. Authorities

This Annex is established pursuant to the Memorandum of Agreement (MOA) between the NOAA and the Department of the Army, with an effective date of 21 July 1995, and under the authority of the Economy in Government Act, 31 U.S.C. 1535. NOAA is authorized to perform these activities under 33 U.S.C. Section 883a and enter into such agreements pursuant to 33 U.S.C. Section 883e. The Water Resources Development Act of 1992 (WRDA92), Section 224, Channel Depths and Dimensions, requires USACE to reference coastal navigation projects to a consistent Mean Lower Low Water (MLLW) datum based on tidal characteristics defined and published by the U.S. Department of Commerce.

III. Work Statement and Execution Arrangement

This Annex is an agreement to coordinate work and exchange information and expertise. Work Orders (WO) will be used where required to delineate further commitments for specific project areas. Tasks to be accomplished during the performance period of each WO shall be based on USACE priorities and available funds, and NOS personnel resource considerations.

IV. Annual Work Plan

In cases where cooperative or reimbursable projects can be definitively projected, the Parties shall develop an Annual Work Review Plan (AWRP) specifying pertinent data on such cooperative efforts, to include project location, general nature of study, anticipated dates, and priorities. In addition, the parties may develop joint technical training, workshop sessions, symposia or publications to support objectives of the Annex. The agency points of contact responsible for the development of annual work plans are identified in paragraph VI.

V. Implementation and Funding Arrangements

WO specifying the objectives, schedules, identification of points of contact, amount of funds required and available to accomplish work or other particulars as are necessary to describe clearly the objectives of the parties, shall be submitted by the requesting Party Representative to the providing Party Representative prior to commitment to a project. The providing Party Representative shall prepare a standard form (SF) 1080 (Voucher for Transfers between Appropriations and/or Funds) and bill the other Party in advance in accordance with terms outlined in Article VI of the MOA. All projects shall be considered to cover a period of two fiscal years minimum, and costs shall be identified for both years in the WO.

VI. Work Order Authority, Points of Contact

In USACE, Division, District, Laboratory, and Field Operating Activity project managers are authorized as Party Representatives to develop WO under this Annex. Each USACE Command shall follow its internal policy in authorizing individuals to sign a WO. Anticipated annual requirements, copies of approved/executed WO, and other related information shall be forwarded to the following respective offices for development of an Annual Work Review Plan (AWRP), tracking overall program activities, and funding under the referenced MOA.

HQUSACE
ATTN: CECW-EP-S (Bill Bergen)
20 Massachusetts Ave, NW
Washington, DC 20314-1000
(202) 761-1553 FAX (202) 761-4002
E-mail: william.bergen@inet.hq.usace.army.mil

NOAA
ATTN: James Hubbard N/OES22
SSMC4 Sta. 7601
1305 East-West Hwy
Silver Spring, MD 20910
(301) 713-2877 FAX (301) 713-4436
E-mail: hubbard@wlnet1.nos.noaa.gov

VII. Amendment, Review, and Termination.

If the terms of this Annex are inconsistent with the referenced NOAA-DA MOA, agency directives, regulations, or law, then those portions of this Annex determined to be inconsistent shall be invalid, but the remaining terms and conditions not affected by the inconsistency shall remain in force and effect.

The parties shall use best efforts to resolve disagreements concerning interpretation of the provisions, amendments, or revisions of this Annex in accordance with Article IX of the referenced NOAA-DA MOA.

This Annex may be amended only by written, mutual agreement of the Parties. This Annex may be terminated by mutual agreement. In addition, either Party may terminate this Annex by providing written notice to the other Party. The termination shall be effective on the sixtieth calendar day following notice, unless a later date is set forth. In the event of termination, the Party requesting goods and services under the Annex shall be responsible for the cost of closing out or transferring any on going contracts. The provisions of this Annex which require performance after the expiration of termination of this Annex shall remain in force notwithstanding the expiration or termination of this Annex.

VIII. Reports and Publications.

Manuscripts prepared by one Party that describe or are derived from work or results funded in part or totally by the other Party shall be submitted to the other Party for approval prior to publication. This includes all reports, articles, summaries, and press releases. Once a manuscript is submitted by one Party to the other, the receiving Party will seek expeditious approval through their chain of command.

IX. Dispute Resolution and Liability

The parties shall use best efforts to resolve disagreements concerning interpretation of the provisions, amendments, or revisions of this Annex in accordance with Article IX of the referenced MOA. Liability responsibilities are defined under Article X of the referenced MOA. NOAA shall be responsible for certifying the accuracy and validity of tidal datums established at USACE river and harbor projects.

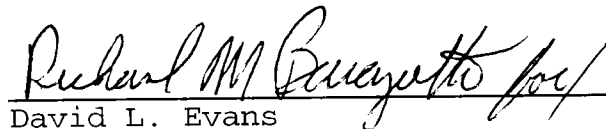
X. Effective Date.

This Annex shall become effective upon the signature of both approving officials and shall remain in effect during the period that the referenced NOAA-DA MOA is in effect or until otherwise terminated as provided in paragraph XII.

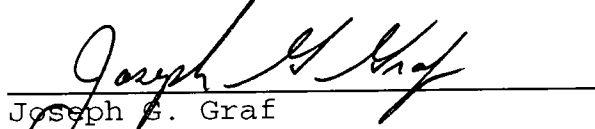
David L. Evans
Acting Director
Ocean and Earth Sciences
National Ocean Service

Joseph G. Graf
Colonel, U.S. Army
Executive Director of Civil Works
U.S. Army Corps of Engineers

APPROVED:


David L. Evans

Date: 6/12/96


Joseph G. Graf

Date: 6/25/96



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Ocean and Earth Sciences
Silver Spring, Maryland 20910

June 17, 1996

Joseph G. Graf
Colonel, U.S. Army
Executive Director of Civil Works
U.S. Army Corps of Engineers
Pulaski Building (Room 6123C)
20 Massachusetts Avenue, NW
Washington, D.C. 20314-1000

Dear Colonel Graf:

Enclosed is the Water Levels Annex to the umbrella Memorandum of Understanding (MOU) between the National Oceanic and Atmospheric Administration and the Department of the Army.

Please sign and date all three copies of the Annex; keep one fully executed copy for your files, and return the other two copies to us.

Sincerely,

Richard M. Barazotto
Chief, Ocean and
Lake Levels Division

Enclosure



HYDROGRAPHIC SURVEYING ANNEX
TO THE
MEMORANDUM OF AGREEMENT
BETWEEN
THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AND
THE DEPARTMENT OF THE ARMY

I. Introduction and Background

The purpose of this Annex is to facilitate beneficial cooperation in hydrographic surveying between the U.S. Army Corps of Engineers (USACE) and the National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA) ("the Parties"), and to establish mechanisms for implementing survey projects, coordinating work, providing professional services contract support, exchanging information and expertise, and, where appropriate and effective, pooling resources of the Parties. Specifically, this Annex establishes the overall policies and relationships guiding interagency activities between USACE and NOAA for funding and performing hydrographic surveys. This Annex provides for the maximum use of existing infrastructure and resources within each Agency to the mutual benefit of both agencies. The primary application of this Annex is to facilitate NOAA's access to and use of USACE-contracted survey forces which will provide NOAA with a rapid response capability in more locations and more effectively support NOAA's nautical charting mission.

II. Authorities

This Annex is established pursuant to the Memorandum of Agreement (MOA) between NOAA and the Department of the Army effective on July 21, 1995, and under the authority of the Economy in Government Act, 31 U.S.C. 1535.

III. Statement of Work, Responsibilities, and Execution

Achievement of the Parties' missions stated above require sustained cooperation between the Parties. This Annex is an agreement to coordinate work and exchange information and expertise and to provide professional services contracting support where required to accomplish the work. Work Orders issued in accordance with this Annex will be used to delineate further commitments for individual items of work as outlined in Article IV of the referenced MOA and further described below.

A. NOAA RESPONSIBILITIES

1. NOAA shall determine and provide to USACE the data collection requirements and scope of work for each survey project area. If available, cost and personnel estimates (and any particular funding limitations) shall be provided to USACE for its consideration prior to approval of the Work Order.

2. NOAA shall provide to USACE contract personnel, the NOAA accuracy standards, performance specifications, data recordation and submittal requirements, and applicable equipment calibration procedures required for the survey. These standards will be directly included in delivery orders issued by USACE Commands to its contractors.

3. NOAA may opt to inspect or monitor any aspect of the field or office survey activities in progress. NOAA technical representatives may opt to attend and render technical advice during negotiations with USACE Architect-Engineer contractors.

4. NOAA will advise USACE of any specialized instrumentation, equipment, or personnel requirements that may be required to supplement standard USACE contract hydrographic survey crews.

5. NOAA will advise the affected USACE district when and where NOAA hydrographic survey projects are scheduled so that best use of NOAA and USACE survey assets may be obtained in meeting requirements of both agencies.

B. USACE RESPONSIBILITIES

1. Upon mutual agreement, USACE shall provide, using contracted forces, all field personnel, floating plant, instrumentation, and related equipment required to perform hydrographic surveys in accordance with NOAA standards and specifications.

2. USACE shall perform all contract administrative actions necessary to provide NOAA access to private surveying firms under contract with USACE. This includes maintenance of basic indefinite delivery contracts and issuance of delivery orders under those contracts.

3. USACE shall inform NOAA of pending contract negotiations and ensure NOAA technical representatives are fully involved in all discussions.

4. On cooperative hydrographic survey projects, USACE shall provide a secure area at its field offices to be used as an equipment storage area by NOAA personnel. The type and amount of space shall be specified in the Work Order.

IV. Annual Work Plan

In cases where cooperative or reimbursable projects can be definitively projected, the Parties shall develop an Annual Work Plan specifying pertinent data on such cooperative efforts to include project location, general nature of survey, anticipated dates, and priorities. The Agency points of contact responsible for the development of annual work plans are identified in paragraph VI. USACE or NOAA field offices with anticipated requirements shall forward them to the points of contact identified in paragraph VI. Special-case surveys or unscheduled surveys may be requested and initiated at any time whether or not they were included in the Annual Work Plan. An Annual Work Plan is not required if no cooperative or reimbursable work effort can be accurately forecast.

V. Implementation and Funding Arrangements

Work Orders requesting either cooperative or reimbursable surveys shall be submitted by the requesting Party Representative to the providing Party Representative prior to initiation of a project along with an attached detailed SOW, schedules, identification of the Parties points of contact for the specific work, the amount of funds required and available to accomplish the work, frequency of inspections (if required), and other particulars necessary to describe clearly the obligations of the Parties. Fund transfers shall be performed in accordance with Article VI of the referenced MOA.

VI. Work Order Authority, Points of Contact, and Upward Reporting

In USACE, District, Laboratory, and Field Operating Activity project managers are authorized as Party Representatives to develop Work Orders under this Annex. Each USACE Command shall follow its internal policy in authorizing individuals to sign a Work Order. Anticipated annual requirements, copies of approved/executed Work Orders, and other related information shall be forwarded to the following HQUSACE office for development of an Annual Work Plan, tracking overall program activities, and funding under the referenced MOA.

HQUSACE
 ATTN: CECW-EP-S (Bill Bergen)
 20 Massachusetts Ave. NW.
 Washington, D.C. 20314-1000

Telephone: 202-761-1553; FAX: 202-761-4022
 E-mail: william.bergen@inet.hq.usace.army.mil

In NOAA, the designated Party Representative is:

Captain Andrew A. Armstrong, III, NOAA
 Chief, Hydrographic Surveys Division (N/CS3)
 Coast Survey, NOAA
 SSMC3, Station 6838
 1315 East-West Highway
 Silver Spring, Maryland 20910-3282

Telephone: 301-713-2698; FAX: 301-713-4533
 E-mail: aarmstrong@spur.nos.noaa.gov

A copy of the approved/executed Work Order shall be forwarded to the NOAA Party Representative. The NOAA Party Representative shall identify individual project managers authorized to work with the USACE Party Representative to develop Work Orders under this Annex.

VII. Amendment, Review, and Termination

If the terms of this Annex are inconsistent with the referenced MOA, Agency directives, regulations, or law, then those portions of this Annex determined to be inconsistent shall be invalid, but the remaining terms and conditions not affected by the inconsistency shall remain in force and effect.

This Annex may be amended or terminated following the same provisions in Article XII of the referenced MOA.

VIII. Reports and Publications

Manuscripts prepared by one Party that describe or derive from work or results funded in part or totally by the other Party under this Annex shall be submitted to the other Party for approval prior to publication. This includes all reports, articles, summaries, and press releases. Once a manuscript is submitted by one Party to the other, the receiving Party will seek approval expeditiously through the HQ point of contact identified in paragraph VI.

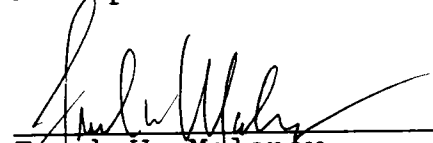
IX. Dispute Resolution and Liability

The Parties shall use their best efforts to resolve disagreements concerning interpretation of the provisions, amendments, or revisions of this Annex in accordance with Article IX of the referenced MOA. Liability responsibilities are defined under Article X of the referenced MOA. USACE A-E service contractors are responsible for the professional quality, technical accuracy, and coordination of all services required under their contracts (FAR 36.608). Errors or deficiencies by USACE contractors shall be resolved in accordance with the provisions of Engineering Regulation 715-1-10, A-E Responsibility Management Program.

X. Effective Date

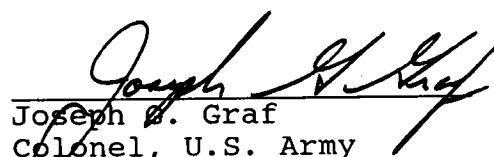
This Annex shall become effective upon the signature of both approving officials and shall remain in effect during the period that the referenced MOA is in effect or until otherwise terminated.

National Oceanic and
Atmospheric Administration



Frank W. Maloney
Director, Coast Survey
National Ocean Service

U.S. Army Corps of Engineers



Joseph W. Graf
Colonel, U.S. Army
Executive Director of Civil
Works
U.S. Army Corps of Engineers

3/18/96

Date

3/26/96

Date

**LIDAR BATHYMETRY ANNEX
TO THE
MEMORANDUM OF AGREEMENT
BETWEEN
THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AND
THE DEPARTMENT OF THE ARMY**

I. Introduction and Background

The purpose of this Annex is to facilitate beneficial exploitation of lidar bathymetry between the U.S. Army Corps of Engineers (USACE) and the National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA) ("the Parties"), and to establish mechanisms for implementing lidar survey projects, coordinating work, exchanging information and expertise, and, where appropriate and effective, pooling resources of the Parties.

USACE conducts an extensive annual hydrographic surveying program in support of planning, design, construction, and maintenance of Federal projects. USACE's surveying program covers a broad range of project types including flood control, navigation, and erosion control. The most resource-demanding survey requirement is the need for quick and accurate bathymetric surveys of riverine, coastal, harbor, lake, and channel areas.

NOS and its predecessor agencies have been responsible for the production of nautical charts, the surveys needed to prepare them, and related matters since 1807. NOS has been involved, in the development of laser bathymetry technology since the 1970's.

The Scanning Hydrographic Operational Airborne Lidar Survey (SHOALS) system was developed to meet USACE requirements to augment existing vessel-based survey methods at comparable costs without requiring significant additional man power to operate or administer. USACE's long-term objective for developing the SHOALS system is to demonstrate lidar technology as technically viable and economically competitive and to interest the private hydrographic survey industry in purchasing additional systems, thus making lidar, bathymetry services available in a competitive market. NOS' objective is to promote the development and availability of technologies such as lidar bathymetry that will increase the efficiency and effectiveness of its survey mission execution. NOS is assisting the USACE Waterways Experiment Station in the development, testing, and characterization of the SHOALS system.

The SHOALS system is designed for use from a Bell 212 helicopter or other aircraft at altitudes ranging from 200 to 1,000 meters. The system is designed to measure and record water depths from approximately 1 to 40 meters. Onboard system components include an Nd:YAG laser transmitter/receiver with scanning device; a system to provide the pilot with real-time navigation guidance; an aircraft attitude recorder; a positioning system; a computer system to acquire, initially process, and store all sensed depth data as well as system time and platform position and attitude; and a status panel so the onboard operator can monitor system parameters and confirm that valid data are being collected. A ground-based data processing system produces a fully corrected and quality-checked file of position and water depth referenced to standard survey control.

II. Authorities

This Annex is established pursuant to the Memorandum of Agreement (MOA) between NOAA and the Department of the Army effective on July 21, 1995, and under the authority of the Economy in Government Act, 31 U.S.C. 1535.

III. Statement of Work, Responsibilities, and Execution

Achievement of the Parties' objectives stated above require further and sustained development of the SHOALS system and lidar technology in general. Through this Annex, the Parties will pursue the advancement and exploitation of lidar technology. This Annex is an agreement to coordinate work and to exchange information and expertise.

Work Orders will be used to delineate further commitment for individual items of work. In cases where cooperative or reimbursable projects can be definitively projected, the Parties shall develop an Annual Work Plan specifying pertinent data to include project location, general nature of the survey, anticipated dates, and priorities. The Agency points of contact responsible for the development of Annual Work Plans are identified in section V. USACE and NOAA field offices with anticipated requirements shall forward them to the points of contact identified in section V.

Each survey mission or subset of an Annual Work Plan will provide detailed information necessary to develop a Scope of Work (SOW) for the system operator, the contractor who operates the lidar survey system (SHOALS or other), to conduct hydrographic surveys. The Parties will coordinate SOW details with the system operator to develop cost estimates and survey mission schedules. Special-case or otherwise unscheduled surveys may be requested and initiated at any time whether or not they were included in any

Annual Work Plan in place. An Annual Work Plan is not required if a cooperative or reimbursable work effort cannot be accurately forecast.

Surveys shall be conducted by the system operator providing complete turnkey service including system mobilization, survey flights, tide control, data processing, and final product production unless otherwise stated in the SOW. The Parties have the right to participate in survey missions to provide general guidance. Survey mission products shall be defined in the Work Order and SOW and will be available to both Parties. Typical products will include survey data acquisition and processing records, tide-corrected georeferenced digital depth data, and two- and three-dimensional digital models and paper plots in a format agreed to by the Parties.

IV. Work and Funding Arrangements

Work Orders requesting either cooperative or reimbursable surveys shall be submitted by the requesting Party Representative to the providing Party Representative prior to initiation of a project. The Work Order request shall include a detailed SOW, schedules, identification of the points of contact for the specific work, frequency of inspections (if required), and other particulars necessary to describe clearly the obligations and requirements of the Parties. Fund transfers shall be performed in accordance with Article VI of the referenced MOA.

V. Work Order Authority, Points of Contact, and Upward Reporting

In USACE, Division, District, Laboratory, and Field Operating Activity project managers are authorized as Party Representatives to develop Work Orders under this Annex. Each USACE Command shall follow its internal policy in authorizing individuals to sign a Work Order. Anticipated annual requirements and other related information shall be forwarded to the following office for development of an Annual Work Plan, tracking overall program activities, and funding under the referenced MOA:

Mr. W. Jeff Lillycrop (CEWES-CD-SE)
U.S. Army Engineer Waterways Experiment Station
Coastal Engineering Research Center
3909 Halls Ferry Road
Vicksburg, Mississippi 39180-6199

Telephone: 601-634-4212; FAX: 601-634-3080
Internet: j.lillycrop@cerc.wes.army.mil

In NOAA, NOS' Office of Coast Survey shall follow its internal policy of authorizing individuals to sign a Work Order. A copy of the approved/executed Work Order shall be forwarded to the following office for subsequent management in meeting the terms of this Annex and referenced MOA:

Captain Andrew A. Armstrong, III, NOAA
Chief, Hydrographic Surveys Division (N/CS3)
Coast Survey, NOAA
SSMC3, Room 6838
1315 East-West Highway
Silver Spring, Maryland 20910-3282

Telephone: 301-713-2698; FAX: 301-713-4533
Internet: aarmstrong@spur.nos.noaa.gov

VI. Establishment of a Working Group

A Lidar Working Group will be formed to provide leadership and advice to facilitate continued evolution of lidar bathymetry and the SHOALS system. The Working Group's functions will include guiding lidar bathymetry toward full acceptance by the international hydrographic surveying community and by appropriate standards organizations; maintaining a centralized body of knowledge on lidar technology and, specifically, lidar bathymetry; providing a forum to exchange knowledge, ideas, technology, and operational experiences; creating a mechanism for exchanging information and expertise; and, where appropriate and effective, pooling resources.

The Working Group's charter membership shall consist of scientists and managers from the Parties. Additional memberships may be offered to the Navy, the Defense Mapping Agency including representatives of the Defense Hydrographic Initiative Joint Program Office, and representatives of national and international agencies and organizations involved with or interested in lidar bathymetry. The Working Group shall be co-chaired by the Parties Representatives. Subgroups shall be formed as needed to address special topics. Annual, interim, or special reports shall be prepared as needed.

The Working Group shall hold annual meetings and support appropriate NOAA and USACE conferences through organizing special technical sessions or conducting special meetings or symposia to support the objectives of this Annex. In addition, and, as needed, the Working Group shall conduct appropriate training courses for lidar technology, operation, and data processing.

VII. Amendment, Review, and Termination

If the terms of this Annex are inconsistent with the referenced MOA, Agency directives, regulations, or law, then those portions of this Annex determined to be inconsistent shall be invalid, but the remaining terms and conditions not affected by the inconsistency shall remain in force and effect.

This Annex may be amended or terminated following the same provisions in Article XII of the referenced MOA.

VIII. Reports and Publications

Manuscripts prepared by one Party that describe or derive from work or results funded in part or totally by the other Party under this Annex shall be submitted to the other Party for approval prior to publication. This includes all reports, articles, summaries, and press releases. Once a manuscript is submitted by one Party to the other, the receiving Party will seek approval expeditiously through the point of contact identified in section V.

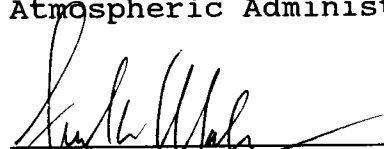
IX. Dispute Resolution and Liability

The Parties shall use their best efforts to resolve disagreements concerning interpretation of the provisions, amendments, or revisions of this Annex in accordance with Article IX of the referenced MOA. Liability responsibilities are defined under Article X of the referenced MOA.

X. Effective Date

This Annex shall become effective upon the signature of both approving officials and shall remain in effect during the period that the referenced MOA is in effect or until otherwise terminated.

National Oceanic and
Atmospheric Administration

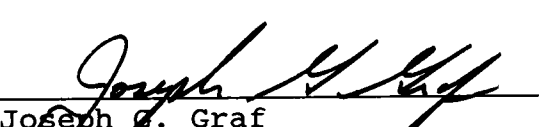


Frank W. Maloney
Director, Coast Survey
National Ocean Service

Date

3/18/94

U.S. Army Corps of Engineers



Joseph G. Graf
Colonel, U.S. Army
Executive Director of Civil Works
U.S. Army Corps of Engineers

Date

3/26/96

GPS/GEODETIC AND RELATED SURVEYING ANNEX
TO THE
MEMORANDUM OF AGREEMENT
BETWEEN
THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
AND
THE DEPARTMENT OF THE ARMY

I. Introduction and Background.

The purpose of this Annex is to facilitate beneficial cooperation in geodetic surveying between the U.S. Army Corps of Engineers (USACE) and the National Geodetic Survey (NGS), National Ocean Service, National Oceanic and Atmospheric Administration ("the Parties") and to establish mechanisms for implementing survey projects, coordinating work, providing professional services contract support, exchanging information, data, and expertise, and, where appropriate and effective, pooling resources of the Parties. Specifically, this Annex establishes the overall policies and relationships guiding inter-agency activities between USACE and NOAA for funding and performing geodetic surveys, including Global Positioning System (GPS) and related high-precision surveys. This Annex provides for the maximum use of existing infrastructure and resources within each agency to the mutual benefit of both agencies.

Both Parties are using GPS to conduct geodetic and related surveying at reduced costs and increased accuracies compared to other technologies. The mission of NGS is to apply state-of-the-art methods of precise positioning and advanced geodetic, photogrammetric, and remote sensing techniques to establish and maintain a consistent national coordinate system. NGS is also responsible for airport surveys including mark positioning, determining positions and elevations of various points along the runways, runway profiles, and aircraft obstruction surveys and charts. The Corps mission involves civil works, military construction, and environmental restoration activities. Geodetic control is used as a reference framework for most Corps projects, and is used to control photogrammetric mapping, site plan topography for construction, dredging, and development of GIS and AM/FM data bases.

One primary application of this Annex is to facilitate NGS's access to and use of USACE contracted survey forces, which will provide NGS with additional geodetic surveying capability in more locations and thereby more effectively support its geodetic surveying mission.

II Authorities.

This Annex is established pursuant to the Memorandum of Agreement (MOA) between the NOAA and the Department of the Army, with an effective date of 21 July 1995, and under the authority of the Economy in Government Act, 31 U.S.C. 1535.

III. Statement of Work, Responsibilities, and Execution.

Achievement of the Parties missions stated above require sustained cooperation between the Parties. This Annex is an agreement to coordinate work, exchange data, technical expertise, and to provide professional services contracting support where required to accomplish the work. Work Orders issued in accordance with this Annex will be used to delineate further commitments for individual items of work, as outlined in Article IV of the referenced MOA and further described below.

A. NOAA RESPONSIBILITIES

1. NOAA shall determine and provide to USACE the data collection requirements and scope of work for each survey project area. If available, cost and personnel estimates (and any particular funding limitations) shall be provided to USACE for its consideration prior to approval of the Work Order. NOAA will provide USACE access to data from any of the nationwide network of NGS CORS stations.

2. NOAA shall provide to USACE and their contractors the NOAA, NGS, or FGCS accuracy standards, performance specifications, monumentation and station description requirements, data recordation and submittal specifications, and applicable equipment calibration procedures required for the survey. These standards will be directly included in delivery orders issued by USACE Commands to its contractors.

3. NOAA may opt to inspect or monitor any aspect of the field or office survey activities in progress. NOAA technical representatives may opt to attend and render technical advice during negotiations with USACE Architect-Engineer contractors.

4. NOAA will advise USACE of any specialized instrumentation, equipment, software, or personnel requirements which may be required to supplement standard geodetic survey crews.

B. USACE RESPONSIBILITIES

1. USACE shall provide, using contracted forces, field personnel, instrumentation, and related equipment required to perform geodetic surveys in accordance with NOAA standards and specifications. Data from the Continuously Operating Reference Stations (CORS) operated by the USACE will be made available for inclusion in the NGS CORS database.

2. USACE shall perform all Architect-Engineer contract administrative actions necessary to provide NOAA access to private geodetic surveying firms--either through use of fixed scope contracts specific to NOAA's requirements or through use of indefinite delivery contracts (IDC) with firms currently under contract with USACE Commands.

This includes maintenance of basic IDC and issuance of delivery orders under those contracts.

3. USACE shall inform NOAA of pending contract negotiations and ensure NOAA technical representatives are fully involved in all discussions.

IV. Annual Work Plan.

In cases where cooperative or reimbursable projects can be definitively projected, the Parties shall develop an Annual Work Plan specifying pertinent data on such cooperative efforts, to include project location, general nature of survey, anticipated dates, and priorities. The agency points of contact responsible for the development of annual work plans are identified in paragraph VI. USACE or NOAA field offices with anticipated requirements shall forward them to the points of contact identified in paragraph VI. Special-case surveys or unscheduled surveys may be requested and initiated at any time whether or not they were included in the Annual Work Plan. An Annual Work Plan is not required if no cooperative or reimbursable work effort can be accurately forecast.

V. Implementation and Funding Arrangements.

Work Orders requesting either cooperative or reimbursable surveys shall be submitted by the requesting Party Representative to the providing Party Representative prior to initiation of a project, along with an attached detailed SOW, schedules, identification of the Parties points of contact for the specific work, the amount of funds required and available to accomplish the work, frequency of inspections (if required), and such other particulars as are necessary to describe clearly the obligations of the Parties. Funds transfers shall be performed in accordance with Article VI of the referenced MOA.

VI. Work Order Authority, Points of Contact, and Upward Reporting.

In USACE, Division, District, Laboratory, and Field Operating Activity project managers are authorized as Party Representatives to develop Work Orders under this Annex. Each USACE Command shall follow its internal policy in authorizing individuals to sign a Work Order. Anticipated annual requirements, copies of approved/executed Work Orders, and other related information shall be forwarded to the following HQUSACE office for development of an annual work plan, tracking overall program activities, and funding under the referenced MOA:

HQUSACE

ATTN: CECW-EP-S (Bill Bergen)

20 Massachusetts Ave, NW

Washington, DC 20314-1000

(202) 761-1553 FAX (202) 761-4002

E-mail: william.bergen@inet.hq.usace.army.mil

In NOAA, Work Orders developed under this Annex will be coordinated through the following office:

Director, National Geodetic Survey

ATTN: N/NGS (CDR George Leigh)

1315 East-West Highway

Silver Spring, Maryland

(301) 713-3222 FAX (301) 713-4315

E-mail: gleigh@ngs.noaa.gov

VII. Amendment, Review, and Termination.

If the terms of this Annex are inconsistent with the referenced MOA, agency directives, regulations, or law, then those portions of this Annex determined to be inconsistent shall be invalid, but the remaining terms and conditions not affected by the inconsistency shall remain in force and effect.

This Annex may be amended or terminated following the same provisions in Article XII of the referenced MOA.

VIII. Reports and Publications.

Manuscripts prepared by one Party that describe or derive from work or results funded in part or totally by the other Party under this Annex shall be submitted to the other Party for approval prior to publication. This includes all reports, articles, summaries, and press releases. Once a manuscript is submitted by one Party to the other, the receiving Party will seek approval expeditiously through the HQ point of contact identified in paragraph VI.

IX. Dispute Resolution and Liability.

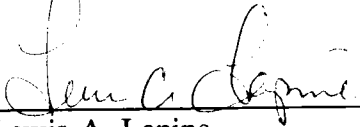
The parties shall use best efforts to resolve disagreements concerning interpretation of the provisions, amendments, or revisions of this Annex in accordance with Article IX of the referenced MOA. Liability responsibilities are defined under Article X of the referenced

MOA. USACE A-E service contractors are responsible for the professional quality, technical accuracy, and coordination of all services required under their contracts (FAR 36.608). Errors or deficiencies by USACE contractors shall be resolved in accordance with the provisions of Engineering Regulation 715-1-10, A-E Responsibility Management Program.

X. Effective Date.

This Annex shall become effective upon the signature of both approving officials and shall remain in effect during the period that the referenced MOA is in effect or until otherwise terminated.

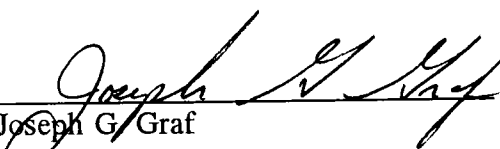
U.S. National Oceanic and
Atmospheric Administration



Lewis A. Lapine
Captain, NOAA
Director, National Geodetic Survey
National Ocean Service, NOAA
Silver Spring, MD 20910

Date: 8/15/96

U.S. Army Corps of Engineers



Joseph G. Graf
Colonel, U.S. Army
Executive Director of Civil Works
U.S. Army Corps of Engineers

Date: 7/15/96